Coal and Climate

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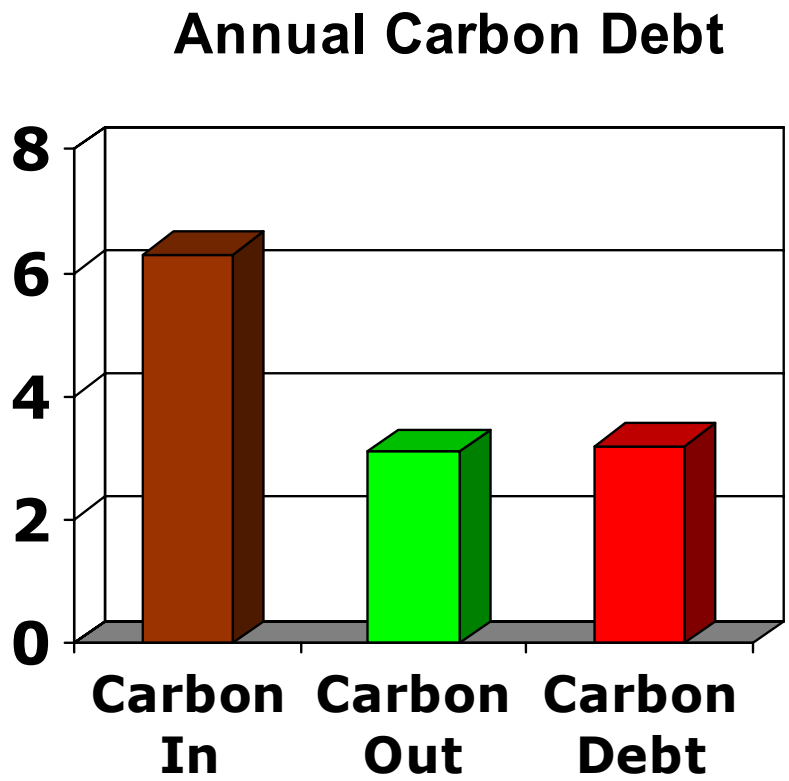
Global Warming Is Different

- Faucet problems:
  - SOx, NOx, lead
  - Pressure builds; Political system responds; Faucet turns; Problem reduced
- Bathtub problem:
  - CO2
  - Delay consumes finite budget and locks in high-carbon investments. Makes solving problem much harder.

Carbon Deficit Spending—Do the Math

- **Energy carbon emissions in year 2000 = 6.3 billion metric tons**
- **Removal to oceans, soils, trees = 3.1 billion metric tons**
- **Net buildup in air = 3.2 billion metric tons**



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Bush Administration Committed to Stabilization

- "I reaffirm America's commitment to the United Nations Framework Convention and it's (sic) central goal, to stabilize atmospheric greenhouse gas concentrations at a level that will prevent dangerous human interference with the climate."

President George W. Bush,

February 14, 2002

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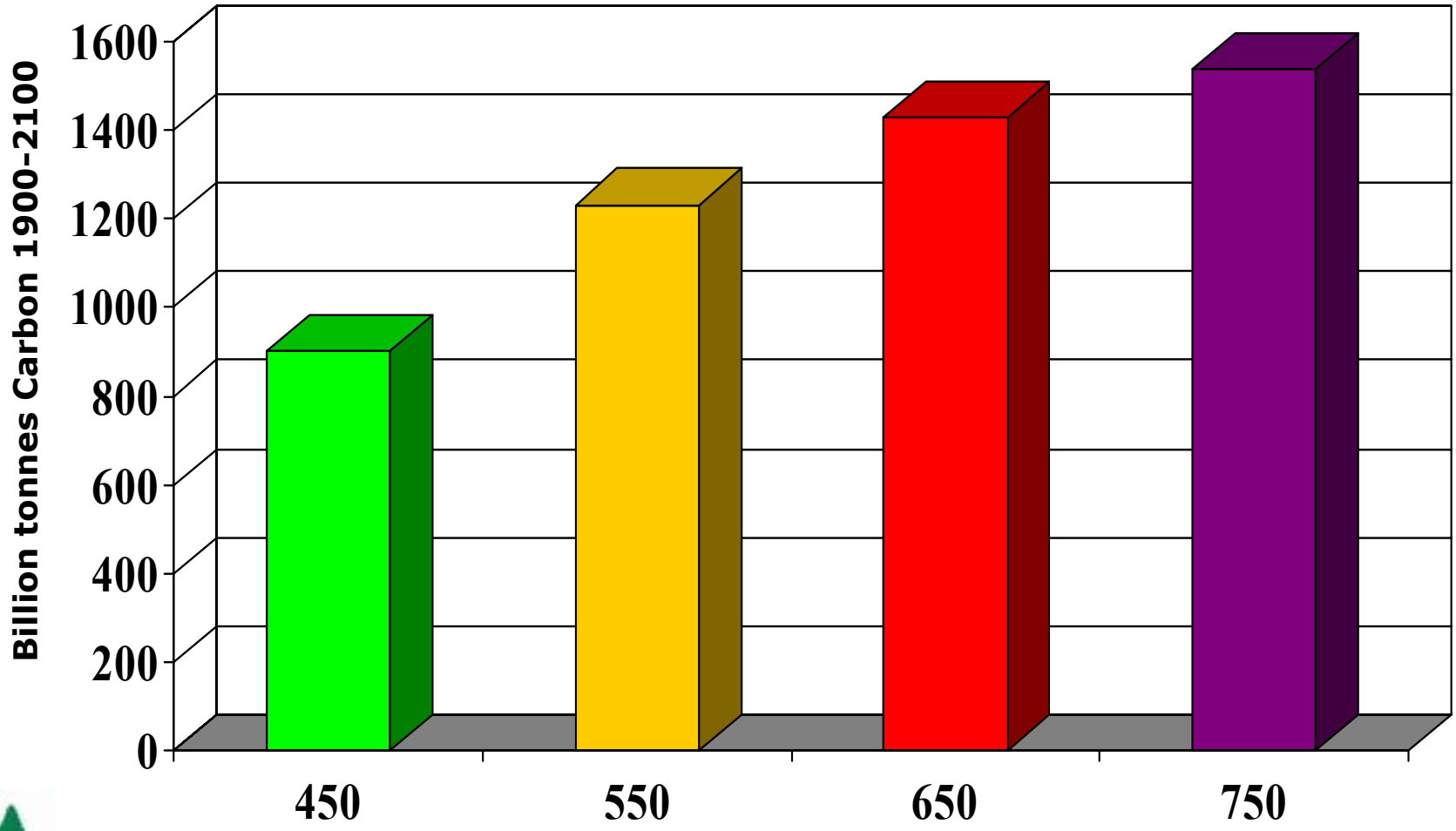
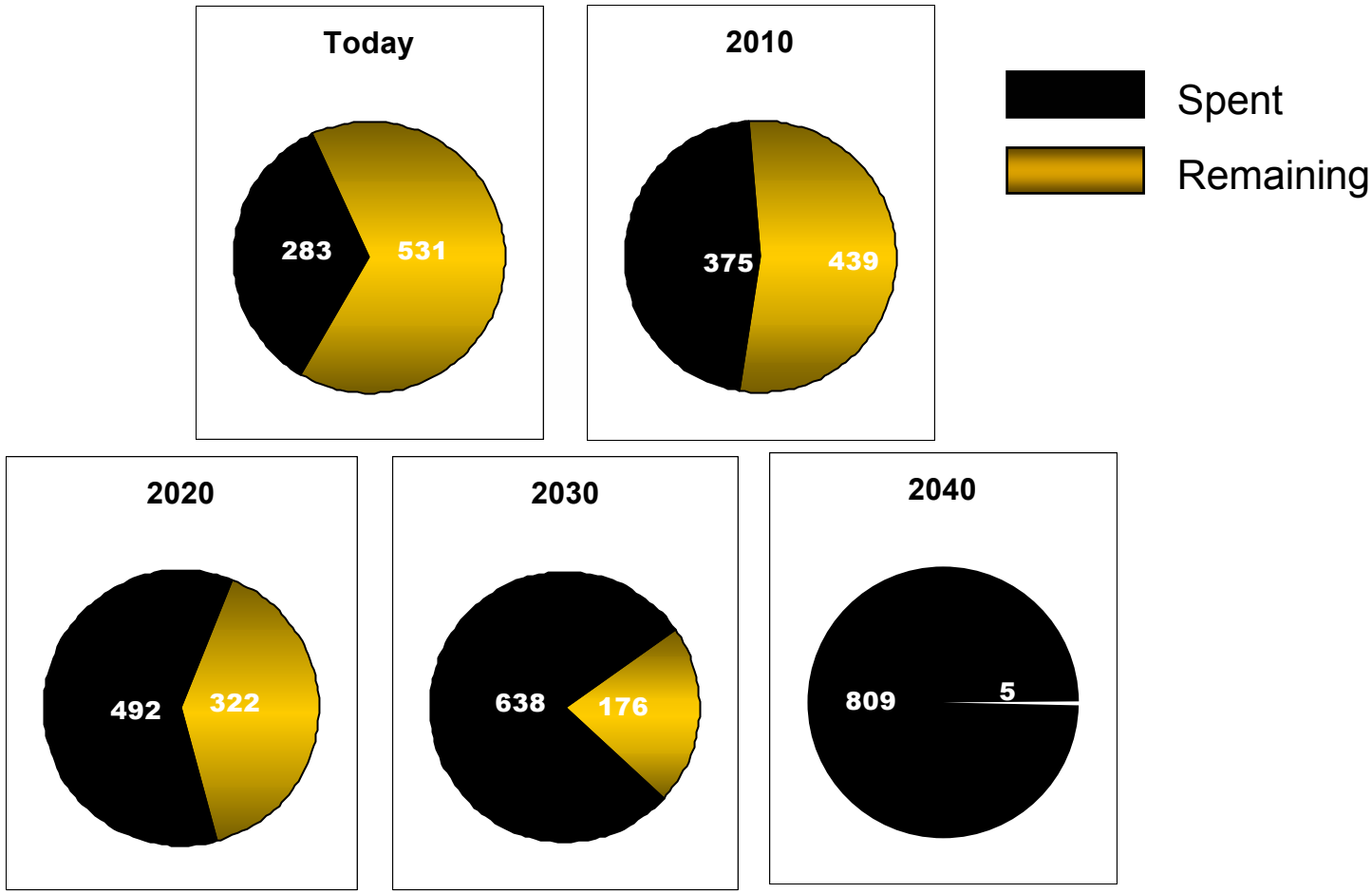
Stabilization Requires a Budget



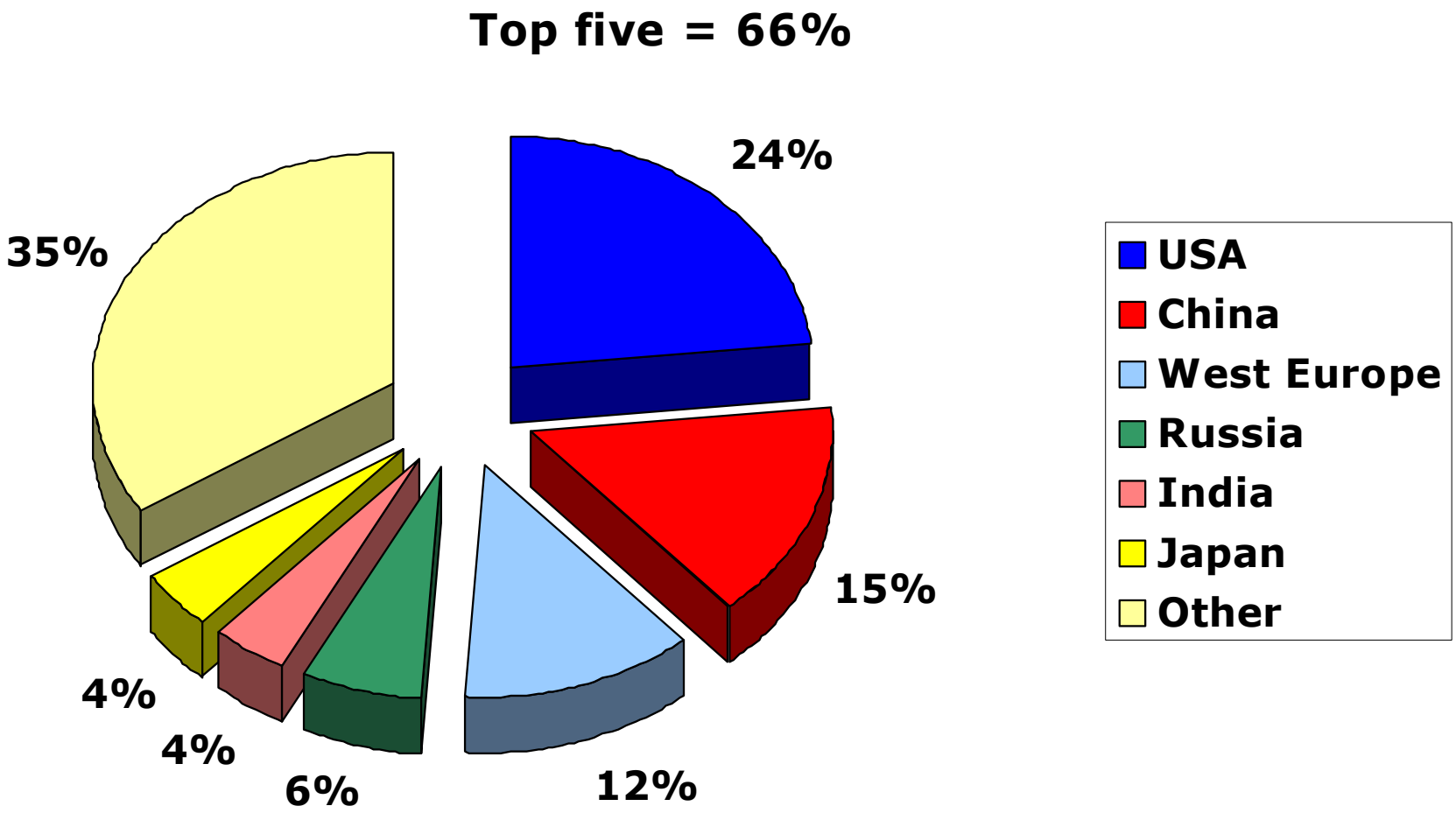
The Budget is Disappearing

Cumulative carbon emissions 1900-2100 (GtC)



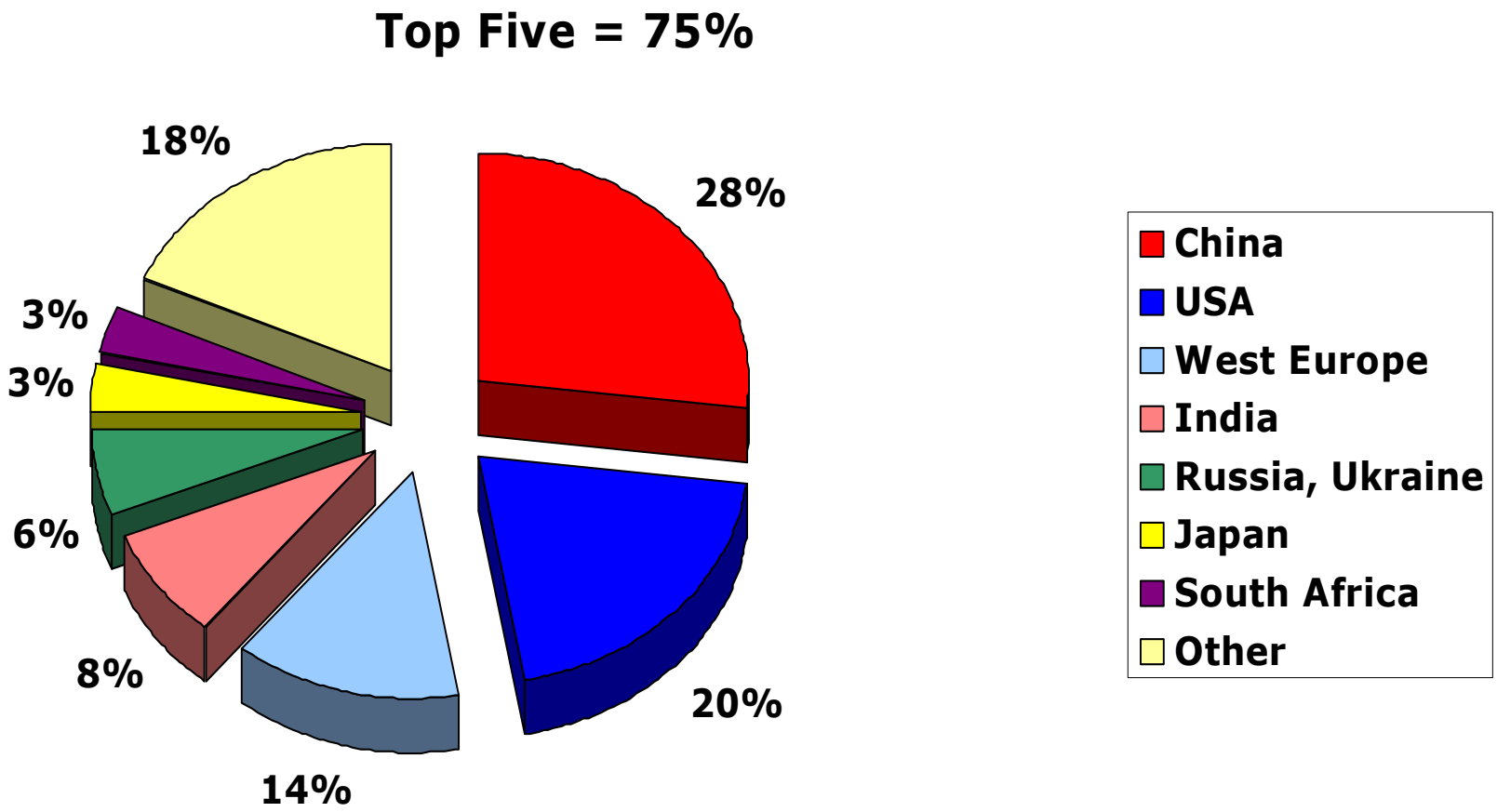
Budget for 450 ppm Stabilization

Biggest Emitters 2000-2025



Cumulative CO2 Emissions 2000-2025, EIA, *IEA 2002*

Biggest Coal Consumers 2002

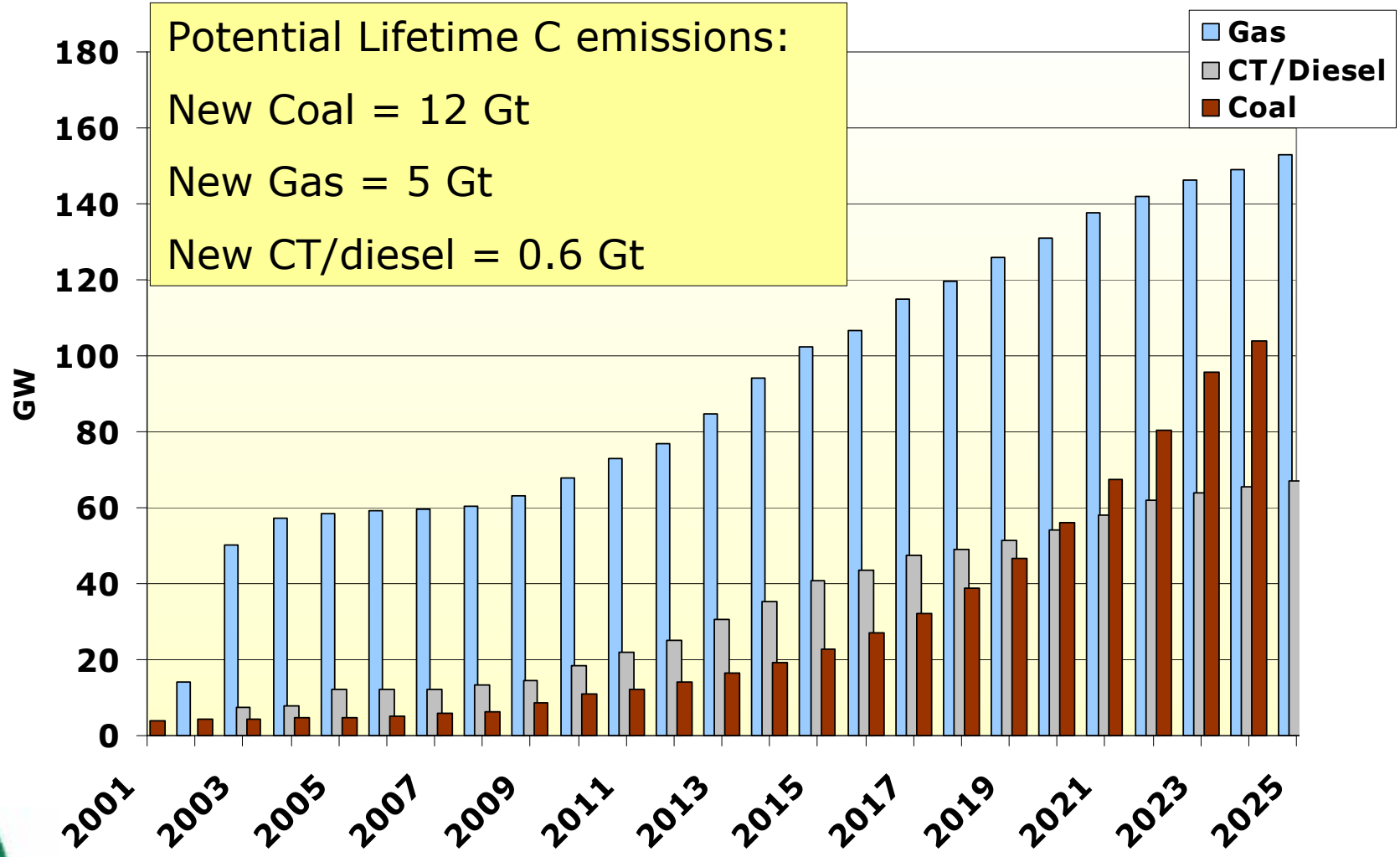


Source:EIA, IEA 2002

Coal with Carbon Capture and Storage

Will it be ready in time?

New U.S. Fossil Additions 2001-2025 Cumulative



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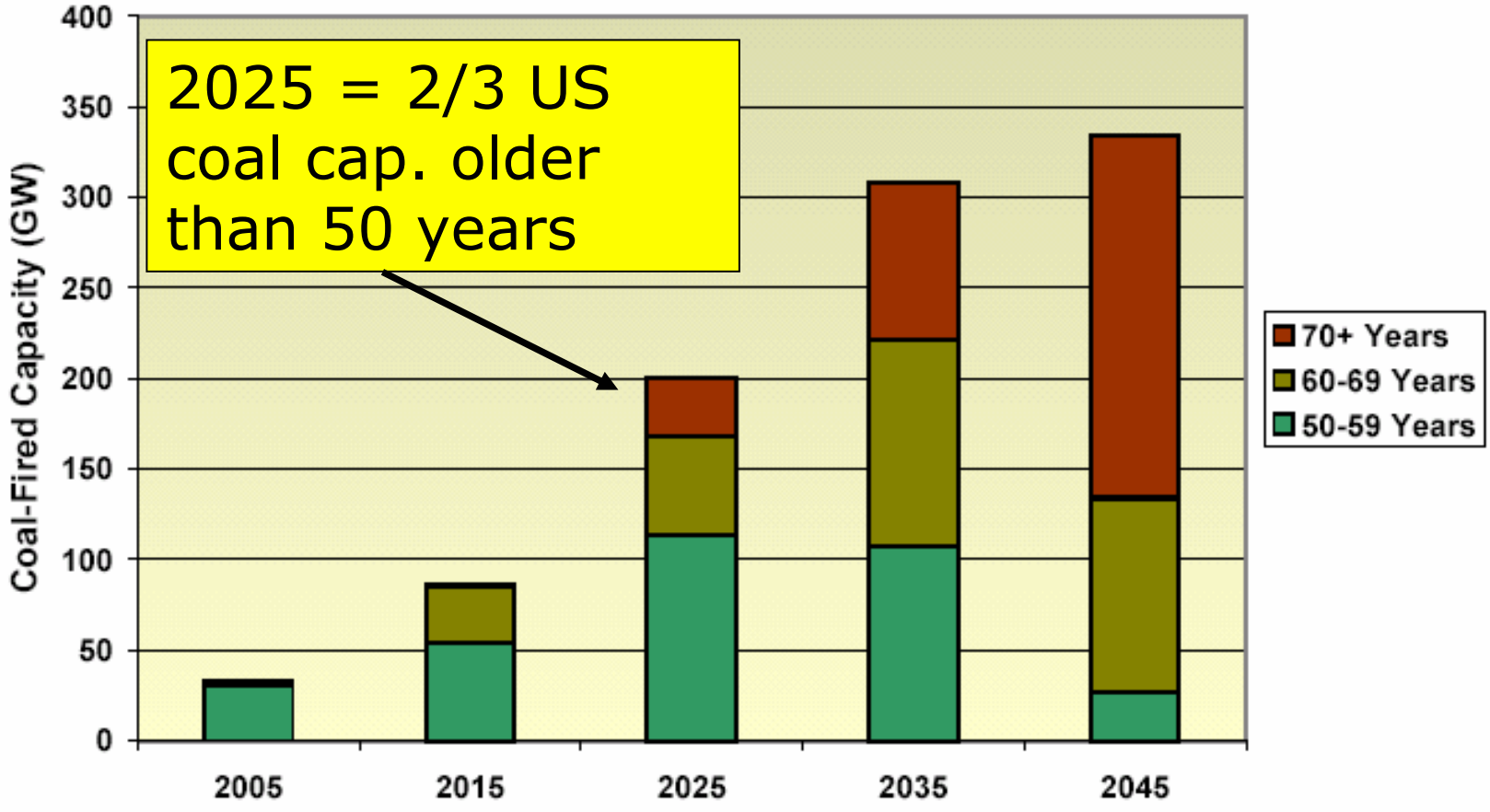
AGING US COAL PLANTS



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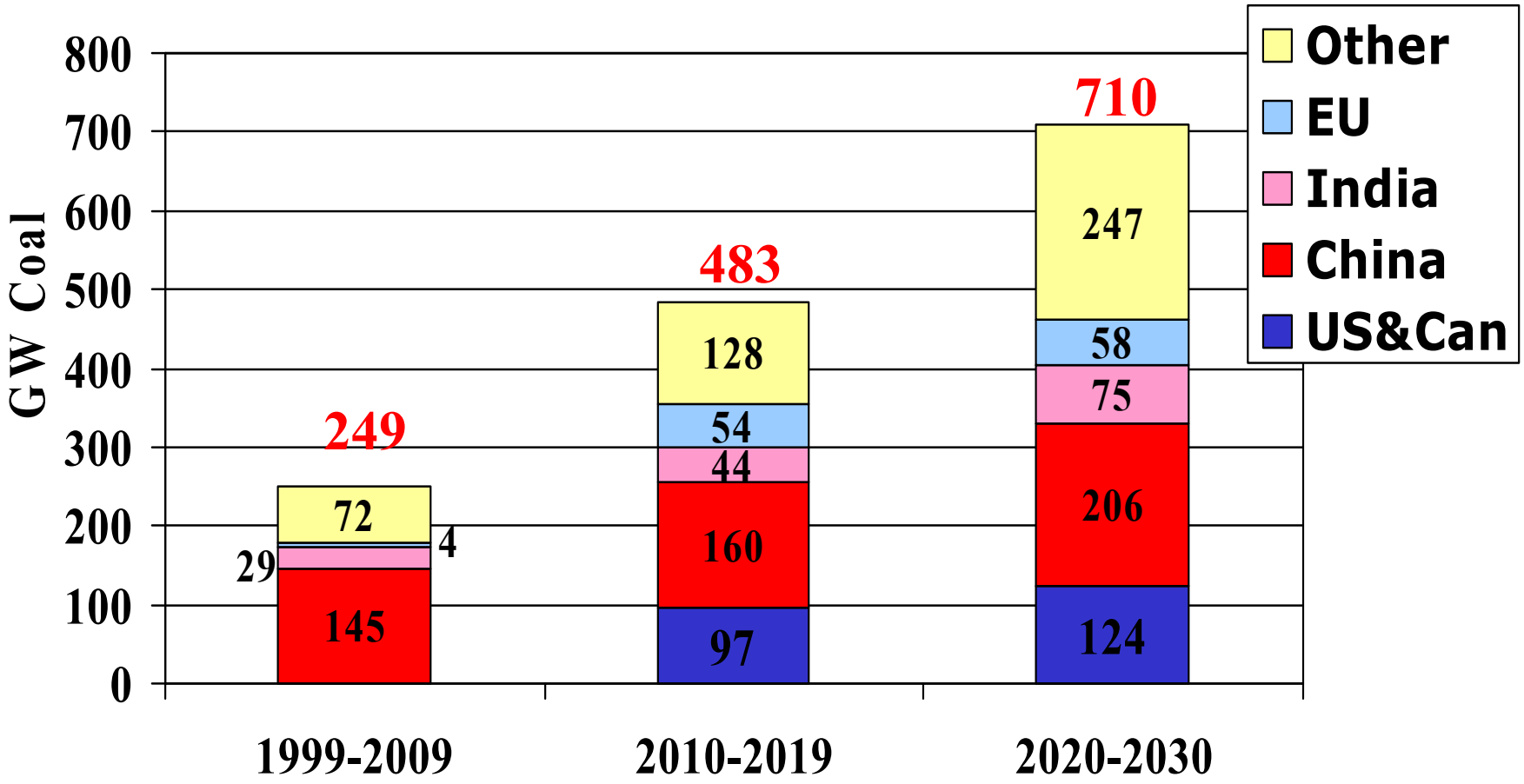
New Global Coal Plants--Catch the Wave or Miss the Wave?

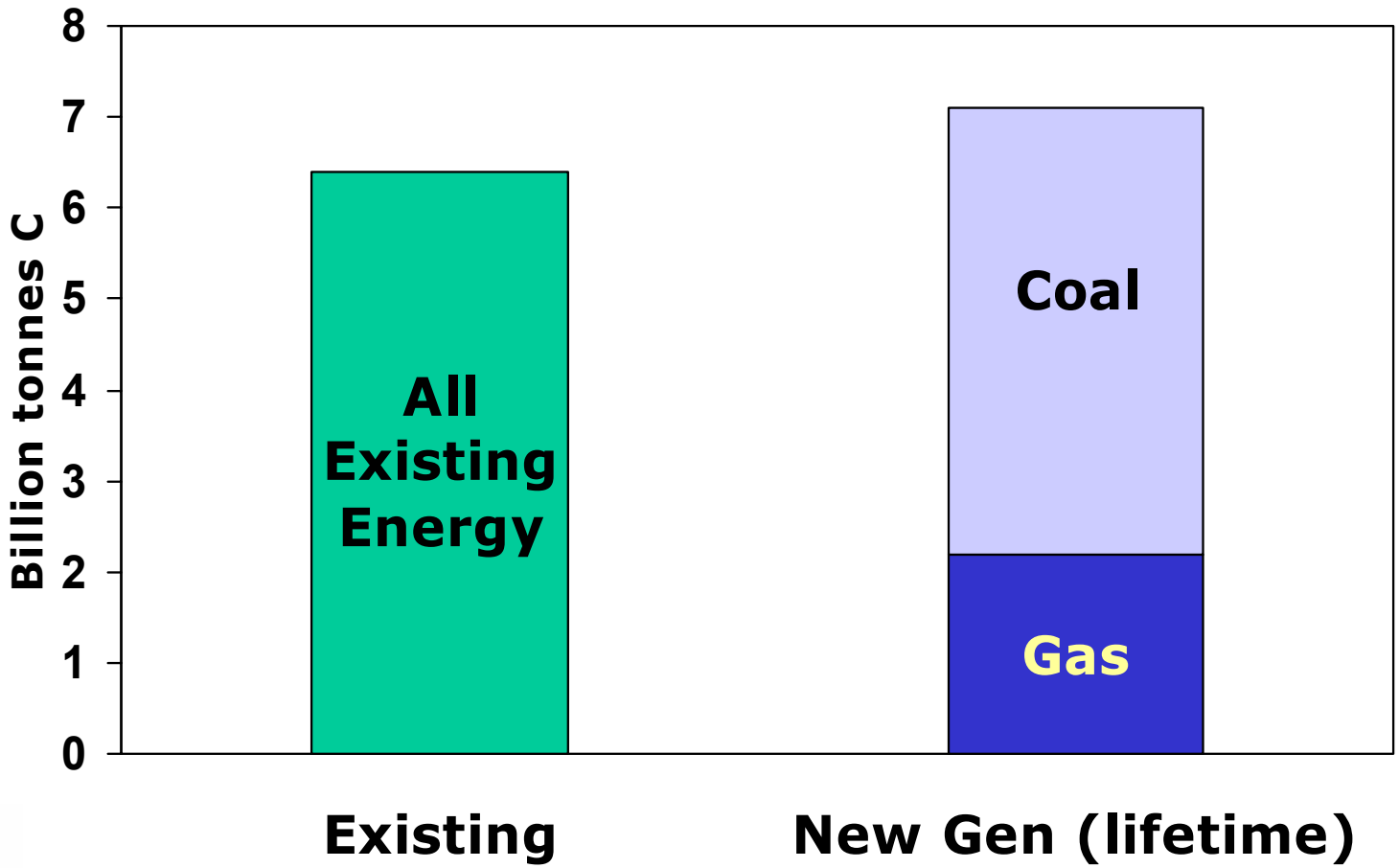


Incremental new coal capacity by decade

Source: IEA, WEO 2002

Digging Ourselves Deeper

Annual Budget Burn Rate



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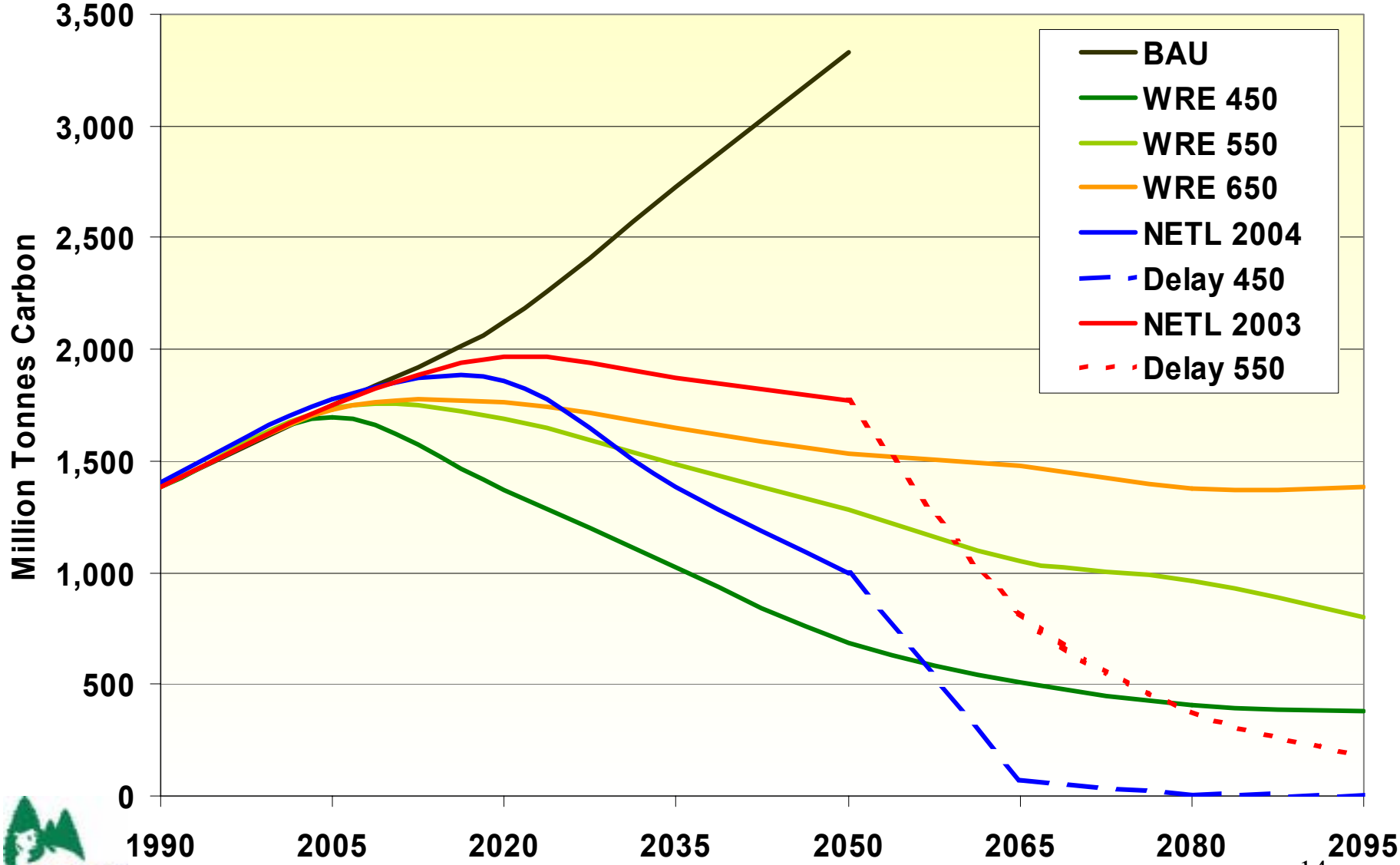
Delay Means Disruption

US CO2 Emission Scenarios



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A Grand Bargain is Possible

- Clear, binding, long-term path for US GHG emissions
- With major new public investments to promote domestic energy resources that enhance security, produce economic development, and address the threat of global warming:
  - Efficiency—no one can take it away;
  - Wind, solar, biomass—home-grown;
  - Coal, IF its carbon is captured and permanently stored underground.

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What's Wrong With This Picture?